

# Service Training

## Vario tractors - fault code tables

**Farmer 400**

**Favorit 700**

**Favorit 900**

**FENDT 700 Vario**

**FENDT 800 Vario**

**FENDT 900 Vario**

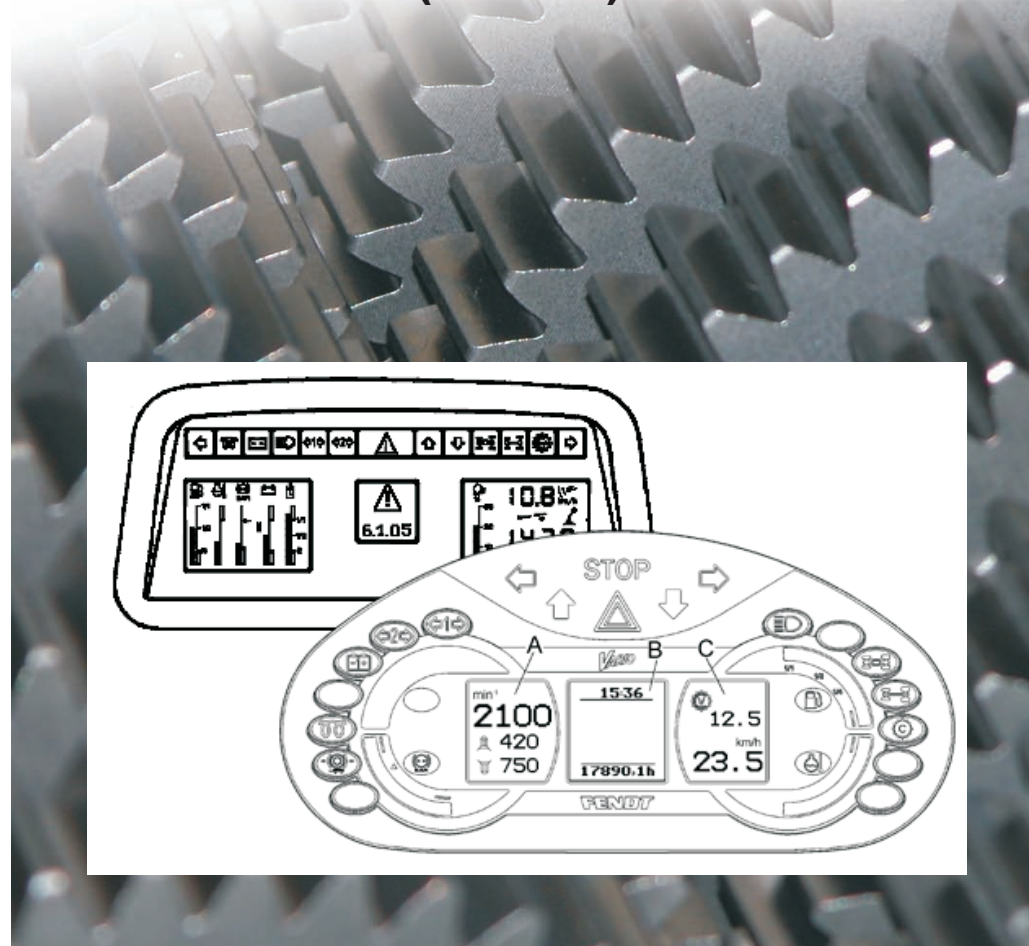
**FENDT 300 Vario (COM III)**

**FENDT 400 Vario (COM III)**

**FENDT 700 Vario (COM III)**

**FENDT 800 Vario (COM III)**

**FENDT 900 Vario (COM III)**



X990.005.448.012 - English



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All relevant accident prevention regulations and all generally accepted safety, health and road traffic regulations must be strictly observed. The manufacturer does not accept liability for damage resulting from unauthorised modifications.

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# Störreodetabelle

FENDT 409	Vario	409 .. / 1001-
FENDT 410	Vario	410 .. / 1001-
FENDT 411	Vario	411 .. / 1001-
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FENDT 711	Vario	711 .. / 1001-
FENDT 712	Vario	712 .. / 1001-
FENDT 714	Vario	714 .. / 1001-
FENDT 716	Vario	716 .. / 1001-
FENDT 815	Vario	715 .. / 1001-
FENDT 817	Vario	717 .. / 1001-
FENDT 818	Vario	718 .. / 1001-
FENDT 916	Vario	916 .. / 1001-
FENDT 920	Vario	920 .. / 1001-
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Fault code table  
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Storingscodetabel



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Fault code	Id code	Brief description	Description	Consequences	Link	FENDIAS / Note
0.0.11	A021; A022	ECU, EDC; ECU, EMR	EDC / EMR bus fault. Fault in ECU	Tractor can be driven using accelerator.		
			Programming errors in ECU.	Fault message, no restrictions.		EOL reprogramming necessary.
0.0.12	A008	Vario terminal	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuse F039, F046	
0.0.13	A004	Control console	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuse F040, F041	
0.0.14	A009	Transmission control unit	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuse F040, F041	
0.0.15	A001, A002	4WD engagement; Diff. lock engagement	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuses F040, F041	
0.0.16	A001, A002	Rear PTO	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuses F040, F041	
0.0.17	A001, A002	Front PTO	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuses F040, F041	
0.0.18	A005, A014	Rear EPC	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuses F040, F041	
0.0.19	A002	Front power lift	Bus fault	No functions available, no display		See Service Training EPC C (X990.005.023.026en)

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Fault code	Id code	Brief description	Description	Consequences	Link	FENDIAS / Note
0.0.1A	A002, Y015, Y016, Y017, Y018, Y019	ECU, enhanced control, electric auxiliary control valves	Bus fault	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuses F040, F041	
0.0.1B	A002	ECU, enhanced control	TeachIn bus faulty - Master (Variotronic TI) ('Teach-in data transfer fault')	Emergency mode		
0.0.1E		ECU, Neumaier	Bus fault Neumaier reversing system	Neumaier System doesn't work		(Neumaier Service Manual)
0.0.1F	A034	Joystick	Joystick bus fault ('Drive switch data transfer fault')	Emergency operation, no auxiliary valve operation	Power supply for CAN bus is in circuit board A013; fuse F047	JOYSTICK CAN - JOYSTICK
0.0.20	A007	Instrument cluster	CAN Bus fault between A007 instrument cluster and tractor electronics	No functions available, no display	Power supply for CAN bus is in circuit board A013; fuses F040, F041	
0.1.50	A007	Instrument cluster	VDO instrument cluster EEPROM not programmed	Malfunctions in instrument cluster		EOL reprogramming necessary
0.1.51	B012	Engine oil pressure sensor	Sensor fault, wiring fault	No monitoring	'Instrument cluster' circuit diagram	
			12 V supply fault		A013 fuse 24	
0.1.54	B019	Compressed air tank pressure sensor	Sensor fault, wiring fault	No display	'Instrument cluster' circuit diagram	
			12 V supply fault		A013 fuse 25	
0.1.55	S036	Hydraulic oil level sensor	Sensor fault, wiring fault	No monitoring	'Spool valves 1' circuit diagram	
0.1.56	B005, A021, A022	Temperature sensor engine temp. (=water), (ECU,EDC / EMR)	Sensor fault, wiring fault	No monitoring	'Instrument cluster' circuit diagram	

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Fault code	Id code	Brief description	Description	Consequences	Link	FENDIAS / Note
0.1.57	B006, A022	Sensor, charge air temperature, ECU, EMR	Sensor fault, wiring fault	No monitoring	Circuit diagram: "Instrument cluster" (F400, F700); "EDC control" (F900); "EMR engine control (F7/800 Vario)	<b>For EDC/EMR</b> EDC - level converter / SERDIA diagnostics
0.1.59	B007; B034	Fuel level sensor	Sensor fault, wiring fault	No display	'Instrument cluster' circuit diagram	
1.1.01, poss.	B038 or B055	EDC / EMR foot throttle rotary position sensor (yellow), combi-sensor	Signal too high, signal too low, signal missing for longer than 2000 ms	Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control' circuit diagram	TRANSMISSION, AUTOMATIC MAXIMUM OUTPUT CONTROL
1.1.03	B029, B038 or B055	EST foot throttle rotary position sensor EST (red), EDC foot throttle rotary position sensor (yellow), combi-sensor	B029 and B038 do not match, no match B055 - combi-sensor (PIN 3 to PIN 6)	Restricted operating mode, Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control' circuit diagram	TRANSMISSION, AUTOMATIC MAXIMUM OUTPUT CONTROL, calibration code '4005'
1.1.04	A002	ECU, enhanced control	Tractor Management System (TMS) checksum error	Tractor Management System (TMS) doesn't function		EOL reprogramming necessary
1.1.05	A021; A022	EDC control module	Engine configuration could not be read from the EDC / EMR - control unit	TMS is disengaged	'EDC Engine control', 'EMR Engine control' circuit diagram	
1.1.7E	B035	Hand throttle rotary position sensor	Signal out of range	Restricted operating mode, Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control' circuit diagram	TRANSMISSION, AUTOMATIC MAXIMUM OUTPUT CONTROL
			8.5 V supply fault		Fuse 26	
1.1.7F	A004	Control console	Electrical fault in hand throttle memory keys (EDC/EMR). No communication with control console.	Last speed setting is retained. Engine speed can be changed using hand throttle or accelerator.		JOYSTICK, CAN-JOYSTICK

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1.1.9E	A002, A004	ECU, enhanced control Control console (B035 - sensor, hand throttle)	CAN connection (enhanced control Bus); A002 - ECU (enhanced control) to A004 - ECU (control console) faulty	Restricted operating mode, Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control' circuit diagram	JOYSTICK, CAN-JOYSTICK
1.1.9F	A034	Drive switch (memory buttons)	A034 - Drive switch (memory buttons) faulty / CAN connection (enhanced control BUS): A002 ECU (enhanced control) to A034 - Drive switch faulty	Restricted operating mode, Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control', 'Transmission Bus', 'Enhanced control Bus' circuit diagram	JOYSTICK, CAN-JOYSTICK
1.1.A0	A021	EDC control module	EDC control module (A021) cannot be identified, EOL programming error	Torque is limited according to fault grading. Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control' circuit diagram	EDC - level converter or Serdia diagnostics
1.1.A1	A002, A021, A022	ECU (enhanced control), EDC engine control module, EMR engine control module	CAN enhanced control module (A002) - Engine control module (A021/A022) connection fault	Chapter 2000 Reg.B (EDC fault or EMR fault)	"Transmission Bus" circuit diagram	EDC - level converter or Serdia diagnostics
1.1.B0			CAN-bus communication restricted			EOL reprogramming necessary.
1.1.E0	A002, B035	A002 - ECU (enhanced control) ; Sensor hand throttle EDC / EMR	EEPROM checksum is wrong	Restricted operating mode, Chapter 2000 Reg.B (EDC fault or EMR fault)	'EDC Engine control', 'EMR Engine control' circuit diagram	New end-of-line programming required or load new data record

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Faults



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Fault code	Id code	Brief description	Description	Consequences	Link	FENDIAS / Note
1.2.01	B041	Sensor, EMR (camshaft)	Signal error, gap to camshaft sprocket too wide, cable connection broken	B042 - EMR sensor (crankshaft) takes over rpm control, no effect on tractor driving mode. <b>Note: If both sensors fail (B041, B042), the diesel engine dies</b>	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.02	B042	Sensor, EMR (crankshaft)	Signal error, gap to flywheel too wide, cable connection broken	B041 - EMR sensor (camshaft ) takes over rpm control, no effect on tractor driving mode. <b>Note: If both sensors fail (B041, B042), the diesel engine dies</b>	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.04	B041, B042	Sensor, EMR camshaft / crankshaft	Overspeed shutoff	Engine stop; tractor in 'Push' mode, check B041/B042 wiring, Y035 - check EMR actuator	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.05	B038 or B055	Sensor, foot throttle EMR;combi-sensor	Signal too high / signal too low	Error message, no effect on tractor driving mode.	see also Chapter 2000 Reg. B - EMR troubleshooting plan	TRANSMISSION, AUTOMATIC MAXIMUM OUTPUT CONTROL SERDIA diagnostics calibration code "4005"
1.2.07	B053	Sensor, charge air temperature / boost pressure (EMR)	Boost pressure signal error. Signal out of range	The A022 - ECU, EMR uses a substitute value to calculate the quantity injected, or reduced output of the tractor. Check the sensor cable connection, replace the sensor	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics

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1.2.09	B048	Sensor, water temperature (EMR)	Signal out of range	if necessary, reduce output, stop engine, check sensor cable connection, replace sensor	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.10	B053	Sensor, charge air temperature / boost pressure (EMR)	Charge air temperature signal error, signal too high, signal too low	The A022 - ECU, EMR uses a substitute value to calculate the quantity injected, or reduced output of the tractor. Check the sensor cable connection, replace the sensor	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.13	G001, G003, G001, A021	Battery 1, battery 2, alternator, engine control module (EDC)	Fault in EDC control module power supply	No engine powerChapter 2000 Reg.B (EDC fault)	"Power supply" circuit diagram	
1.2.17		Engine speed too high (EDC)	Poor driving (e.g. driving downhill)	Chapter 2000 Reg.B (EDC fault)		
1.2.18	A020	Pump control unit (injection pump) (EDC) needle movement sensor	Injection start system deviation	Reduced power, Chapter 2000 Reg.B (EDC fault)	Check fuel supply, primary pressure, interior pressure of pump	EDC level converter
1.2.1A	B026	Needle movement sensor NBF (EDC)	Signal fault	Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter
1.2.1F	A021	Engine control unit (EDC)	CAN message: fault between engine control module and connected electrical system	Chapter 2000 Reg.B (EDC fault)	'EDC control module', 'transmission bus' circuit diagram	
1.2.21	A002	Enhanced control module, transmission bus (EDC)	Fendt ECU not connected or CAN connection to transmission bus interrupted.	Chapter 2000 Reg.B (EDC fault) Chapter 9000 Reg.E (Can Bus)	'EDC control module', 'transmission bus', 'enhanced control bus' circuit diagrams	

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1.2.23	A002	Enhanced control module (EDC)	CAN communication fault between enhanced control module (A002) and EDC	Chapter 2000 Reg.B (EDC fault) Chapter 9000 Reg.E (Can Bus)	'Transmission bus', 'EDC engine control' circuit diagram	
1.2.25	K020	Ub30 EDC relay	Contact does not open, ground contact	Battery can discharge, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.2A	A002, A021	Enhanced control module, EDC control module, transmission bus, enhanced control bus (EDC)	CAN message fault from enhanced control module (A002) to EDC control module (A021), 'Engine brake function'	Engine brake non-operational, Chapter 2000 Reg.B (EDC fault)	'EDC engine control', 'transmission bus', 'engine brake' circuit diagrams	TRANSMISSION CRUISE CONTROL
1.2.2B	A002, A021	Enhanced control module, EDC control module, transmission bus, enhanced control bus (EDC)	CAN message fault from enhanced control module (A002) to EDC control module (A021), 'Engine brake function'	Engine brake non-operational, Chapter 2000 Reg.B (EDC fault)	'EDC engine control', 'transmission bus', 'engine brake' circuit diagrams	TRANSMISSION CRUISE CONTROL
1.2.2C	A002, A021	Enhanced control module, EDC control module, transmission bus, enhanced control bus (EDC)	CAN message fault from enhanced control module (A002) to EDC control module (A021), 'Engine brake function'	Engine brake non-operational, Chapter 2000 Reg.B (EDC fault)	'EDC engine control', 'transmission bus', 'engine brake' circuit diagrams	TRANSMISSION CRUISE CONTROL
1.2.2D	A002, A021	Enhanced control module, engine control module, transmission bus (EDC)	CAN signal fault from enhanced control module (A002) to EDC control module (A021)	Chapter 2000 Reg.B (EDC fault), Chapter 9000 Reg.E (Can Bus)	'EDC engine control', 'transmission bus' circuit diagram	
1.2.2E	A002, A021	Enhanced control module, engine control module, transmission bus (EDC)	CAN signal fault from enhanced control module (A002) to EDC control module (A021)	Chapter 9000 Reg.E (Can Bus)	'EDC engine control', 'transmission bus' circuit diagram	

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1.2.31	A022, B048	ECU, EMR2 ; Sensor, water temperature	Coolant temperature warning threshold exceeded	After a delay period (and coolant temperature remains too high), reduce engine output -- clean the radiator, check coolant level, check B048 sensor	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.32	A022, B053	ECU, EMR2 ; Sensor, charge air temperature / boost pressure	Charge air temperature warning threshold exceeded	After a delay (and if the charge air temperature remains too high), engine power is reduced Clean radiator, test B053 - Sensor	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.35	A022, B041, B042	ECU, EMR2 ; Sensor, EMR (camshaft) Sensor, EMR (crankshaft)	Engine speed too high (for example in 'push' operation)	The control rod is brought to zero delivery position. When speed falls below the recovery threshold, control passes back to the A022 - ECU	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.38	A021	Engine control module (EDC)	Fault in operation of EDC control module, 'Engine stop'	Reduced power, Chapter 2000 Reg.B (EDC fault)	"EDC engine control", "power supply" circuit diagram	EDC level converter
1.2.41	A022 ; B048	ECU, EMR2 ; Sensor, water temperature	Coolant temperature has gone over shutoff threshold	Clean radiator, check coolant lever, test sensor	also refer to Chapter 2000 Reg. B - EMR troubleshooting, Chapter 9000 Reg. E	SERDIA diagnostics
1.2.42 (DEU-TZ EMR)	A022, B053	ECU, EMR2 ; Sensor, charge air temperature / boost pressure	Charge air temperature has gone below shutoff threshold	Clean radiator, test sensor	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.42 (MAN EDC)	A020	Pump control unit (injection pump) (EDC)	Injection pump (pump control unit), fuel temperature too high (overheating)	Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter

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1.2.46	Bus system	Enhanced control bus, transmission bus, EDC bus	CAN-bus message fault	restricted driving mode, Chapter 2000 Reg.B (EDC fault), Chapter 9000 Reg.E (Can Bus)	"EDC engine control", "transmission bus", "enhanced control bus" circuit diagrams	
1.2.50	A022, Y035	ECU EMR2, EMR actuator ('Rotary magnet and position sensor')	Feedback fault from position sensor	<b>Emergency shutoff, engine does not start</b> check actuator (SERDIA diagnostics), check wiring from actuator	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.52	A022, Y035	ECU EMR2, EMR actuator ('Rotary magnet and position sensor')	Feedback fault from position sensor (reference coil)	<b>Emergency shutoff, engine does not start,</b> check actuator, check wiring from actuator, check A022 - ECU EMR	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.53	A022, Y035	ECU EMR2, EMR actuator ('Rotary magnet and position sensor')	Difference between <b>target</b> control travel (ECU EMR2) and <b>actual</b> control travel (actuator) greater than 10%	Error message (disappears when difference is less than 10%), check actuator, check whether control rod functions smoothly	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.67	A022	ECU, EDC	ECU EMR internal error (ERROR Hand Step 1)	Check ECU EMR2, if necessary load a new data record (important: save old data record!!), if necessary replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	
1.2.68	A022	ECU, EDC	ECU EMR internal error (ERROR CAN Step 1)	Check ECU EMR2, if necessary load a new data record (important: save old data record!!), if necessary replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	

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1.2.70	A022	ECU, EDC	CAN Bus controller fault	possible reduced engine running characteristics --- check transmission bus terminating resistors (A013 - circuit board, A009 - actuator unit), check ECU EMR2	also refer to Chapter 2000 Reg.B (EMR Troubleshooting), Chapter 9000 Reg.E (Can Bus)	
1.2.71	A022, X810	ECU, EMR2 ; diagnostics socket	CAN interface fault	possible reduced engine running characteristics --- check transmission bus terminating resistors (A013 - circuit board, A009 - actuator unit), check ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.74	A022; A002	CAN bus, wiring (EMR)	Cable broken, short circuit or serious CAN bus fault; CAN bus passive	Running of engine may be reduced	see also Chapter 2000 Reg. B - EMR troubleshooting plan	'Transmission Bus' circuit diagram
1.2.76	A022	ECU EMR2	Parameter settings incorrect	<b>Emergency, engine does not start</b> --- Switch ignition OFF then ON, check again, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	load new data record
1.2.77	A022	ECU EMR2	continuous monitoring of program memory delivers an error	<b>Emergency, engine does not start</b> --- Switch ignition OFF then ON, check again, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	

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1.2.78	A022	ECU EMR2	continuous monitoring of program memory delivers an error	<b>Emergency, engine does not start</b> --- Switch ignition OFF then ON, check again, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	
1.2.80	A022, Y035	ECU EMR2, EMR actuator	Voltage supply to EMR actuator out of allowed range	Error message (disappears again when the current is in the normal range), turn ignition OFF and ON again, recheck, if error occurs again --> replace ECU EMR2	also refer to Chapter 2000 Reg. B - EMR Troubleshooting, <b>checking cable harness</b>	SERDIA diagnostics
1.2.81	B038 or B 055	EDC foot throttle rotary position sensor (yellow), combi-sensor	Signal fault	Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	TRANSMISSION AUTOMATIC MAXIMUM OUTPUT CONTROL
1.2.82	A020	Pump control unit (injection pump) (EDC)	Fault in high-pressure solenoid valve actuation time	Engine stalls, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter
1.2.83	A022	ECU EMR2	Reference voltage 1 for Y035 - actuator out of allowed range	Error message (disappears when current is back in normal range), substitute value 5 VDC, check voltage supply to ECU EMR2, switch ignition OFF then ON, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics

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1.2.84 (DEU-TZ EMR)	A022	ECU EMR2	Reference voltage 2 for Y035 - actuator out of permissible range	Error message (disappears when current is back in normal range), substitute value 5 VDC, check voltage supply to ECU EMR2, switch ignition OFF then ON, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.84 (MAN EDC)	B025	EDC speed sensor	Signal fault	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter diagram
1.2.85 (DEU-TZ EMR)	A022	ECU EMR2	Reference voltage 4 for Y035 - actuator out of permissible range	Error message (disappears when current is back in normal range), substitute value 5 VDC, check voltage supply to ECU EMR2, switch ignition OFF then ON, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.85 (MAN EDC)	B028	Boost pressure sensor (EDC)	Signal fault	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter diagram
1.2.86	A022	ECU EMR2	Temperature in ECU EMR2 too high	Error message (disappears when temperature is back in normal range), switch ignition OFF then ON, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics

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1.2.87 (DEU-TZ EMR)	A022	ECU EMR2	Atmospheric pressure sensor in ECU EMR2 faulty	Error message (disappears when pressure is back in normal range), switch ignition OFF then ON, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.87 (MAN EDC)	B027	Water temperature sensor (EDC)	Signal fault	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter
1.2.89	A020	Pump control unit (injection pump)	Electronic volume controller fault	Engine won't start, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.90	A022	ECU EMR2	Incorrect parameter (EEPROM reading, or checksum error)	Engine does not start, switch ignition OFF then ON, if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	load new data record
1.2.91	B025	EDC speed sensor	Signal fault	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter
1.2.92	A020 A021	Engine control module, pump control unit (injection pump) (EDC)	Engine stop via 'Injected volume = 0' faulty, see Chapter 2710 Reg. A 'Engine stop'	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.93	A022	ECU EMR2	internal processing error in ECU EMR2 (batch overflow)	<b>Emergency shutoff, engine does not start,</b> switch ignition OFF then ON, if error reappears --> load new data record in ECU EMR2 (important: save old data record!!) if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics

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1.2.94	A022	ECU EMR2	internal processing error in ECU EMR2	<b>Emergency shutoff, engine does not start,</b> switch ignition OFF then ON, if error reappears --> load new data record in ECU EMR2 (important: save old data record!!) if error reappears --> replace ECU EMR2	see also Chapter 2000 Reg. B - EMR troubleshooting plan	SERDIA diagnostics
1.2.96	A021	Engine control module monitoring unit (EDC)	Fault in EDC control module monitoring unit (A021)	Engine stalls, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.99	A020 A021	Engine control module and pump control unit (injection pump) (EDC)	Engine stop via power monitor within EDC control module, Chapter 2710 Reg.A 'Engine Stop'.	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.9B	A020, A021	Engine control module, pump control unit (injection pump) (EDC)	Engine stop via engine stop solenoid valve, Chapter 2710 Reg.A Engine Stop	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.A2	K021	Relay "solenoid valve shut-off" (EDC)	Engine stop via relay K021, Chapter 2710 Reg.A Engine Stop	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.A6	A021, A020	Engine control module, pump control unit (injection pump) (EDC)	Engine stop, fault in signal processing in EDC control module	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.A8	A021	Engine control module (EDC)	Fault in barometric pressure sensor	Chapter 2000 Reg.B (EDC fault)		EDC level converter
1.2.A9	A020	Pump control unit (injection pump) (EDC)	Fault identified during self-diagnostic test	Reduced power, engine won't start, Chapter 2000 Reg.B (EDC fault)		

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1.2.B1	A021, A020	Engine control module, pump control unit (injection pump) (EDC)	EDC CAN message: fault between EDC control module and pump control unit	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.B2	A020	Pump control unit (injection pump) (EDC)	Fault identified during self-diagnostic test	Reduced power, Chapter 2000 Reg.B (EDC fault)		
1.2.B3	A020	Pump control unit (injection pump) (EDC)	Fault in pump control unit power supply. Chapter 2710 Reg.A 'Engine stop'.	Engine stalls, engine won't start, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.B4	A020 A021	Engine control module, pump control unit (injection pump) (EDC)	CAN message: fault between pump control unit and engine control module	Engine idling, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.B5	A020	Pump control unit (injection pump) (EDC)	Fault during pump control unit self-diagnostic test (EEPROM checksum)	Reduced power, Chapter 2000 Reg.B (EDC fault)		
1.2.B6	A020	Pump control unit (injection pump) (EDC)	Fault during pump control unit self-diagnostic test (EEPROM status)	Reduced power, Chapter 2000 Reg.B (EDC fault)		
1.2.B7	A020, B025	Pump control unit (injection pump), engine speed sensor (EDC)	Fault in speed signal to pump control unit, signal processing fault in pump control unit	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter diagram
1.2.B9	A020	Pump control unit (injection pump) (EDC)	Fault during injection pump self-diagnostic test (RAM fault)	Engine stops. Chapter 2000 Reg.B (EDC fault)		

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Fault code	Id code	Brief description	Description	Consequences	Link	FENDIAS / Note
1.2.C1	A020	Pump control unit (injection pump) (EDC)	Fault during pump control unit self-diagnostic test (solenoid valve output stage)	Chapter 2000 Reg.B (EDC fault)	<b>Fault only when starting</b> - check batteries	<b>Fault during operation</b> -check primary pressure and interior pressure of pump
1.2.C3	A021, A020	Engine control module, pump control unit (injection pump) (EDC)	CAN message: fault between engine control module and pump control unit when engine starts	Engine idling (720 rpm), Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.C4	A020	Pump control unit (injection pump) (EDC)	Fault in CAN communication to pump control unit	Engine idling (720 rpm), Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.C5	A021, A020	Engine control module, pump control unit (injection pump) (EDC)	Fault in engine stop via engine stop solenoid valve, Chapter 2710 Reg.A Engine Stop	Reduced power, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	
1.2.C7	A020	Pump control unit (injection pump) (EDC)	Pump speed sensor fault (IWZ signal)	Engine stops. Chapter 2000 Reg.B (EDC fault)	<b>Fault only when starting</b> - check batteries	
1.2.C8	A021, B026, B028	EDC CAN BUS, engine control module, needle movement sensor, boost pressure sensor (EDC)	Engine control module: injection quantity calculation inaccurate	Engine stalls, Chapter 2000 Reg.B (EDC fault)	'EDC control' circuit diagram	EDC level converter
1.2.C9	A020	Pump control unit (injection pump) (EDC)	Fault during pump control unit self-diagnostic test (solenoid valve output stage)	Chapter 2000 Reg.B (EDC fault)	<b>Fault only when starting</b> - check batteries	
1.2.CA	A020	Pump control unit (injection pump) (EDC)	Injection controller out of range	Reduced power, Chapter 2000 Reg.B (EDC fault)	Check primary pressure and interior pressure of pump	Check EDC level converter, needle movement sensor

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